

CLAIMS

We claim:

1. A thermally insulative device which is foldable into a three dimensional box-like shroud for encasing a box having a box height, a box width and a box length, said device comprising:

5 a one-piece composite jacket formed with an interior flexible fabric, an exterior flexible fabric and with a thermal insulation material therebetween, said jacket comprising a plurality of panels integrally formed together with a plurality of flaps,

wherein said plurality of panels including:

10 a central rectangular bottom panel having a first long border, a second long border, a first short border and a second short border, said first long border of said central rectangular bottom panel is sized to be slightly longer than the box length, said second long border of said central rectangular bottom panel is sized to be slightly longer than the box length, said first short border of said central rectangular bottom panel sized to be slightly longer than the box width, said second short border of
15 said central rectangular bottom panel sized to be slightly longer than the box width;

20 a generally rectangular front panel integrally formed with said first long border of said bottom panel, said front panel also having a first edge, a second edge and a third edge, said first edge of said front panel is sized slightly longer than the box length, said second edge of said front panel sized slightly longer than the box height, said third edge of said front panel sized slightly longer than the box height;

25 a generally rectangular back panel integrally formed with said second long border of said bottom panel, said back panel also having a fifth border, a fourth edge, and a fifth edge, said fifth border of said back panel sized slightly longer than the box length, said fourth edge of said back panel sized slightly longer than the box height, said fifth edge of said back panel sized slightly longer than the box height;

30 a generally rectangular left side panel integrally formed with said first short border of said bottom panel, said left side panel also having a first margin, a second margin, and a third margin, said first margin of said left side panel sized slightly longer than the box width, said second margin of said left side panel sized slightly

longer than the box height, and said third margin of said left side panel sized slightly longer than the box height;

a generally rectangular right side panel integrally formed with said second short border of said bottom panel, said right side panel also having a fourth margin, a fifth margin, and sixth margin, said fourth margin of said right side panel sized slightly longer than the box width, said fifth margin of said right side panel sized slightly longer than the box height, said sixth margin of said right side panel sized slightly longer than the box height; and

a generally rectangular top panel integrally formed with said long fifth border of said back panel, said top panel also having a seventh margin, a sixth edge, and a seventh edge, said seventh margin of said top panel sized slightly longer than the box length, said sixth edge of said top panel sized slightly longer than the box width, said seventh edge of said top panel sized slightly longer than the box width; and

wherein said plurality of flaps including:

a first flap integrally formed with said first margin of said left side panel;
a second flap integrally formed with said second margin of said left side panel;
a third flap integrally formed with said third margin of said left side panel;
a fourth flap integrally formed with said fourth margin of said right side panel;
a fifth flap integrally formed with said fifth margin of said right side panel;
a sixth flap integrally formed with said sixth margin of said right side panel; and
a seventh flap integrally formed with said seventh margin of said top panel;

a plurality of primary coupling strips attached to said plurality of flaps, wherein each primary coupling strip having a plurality of miniature hooks, said plurality of primary coupling strips including:

a first primary coupling strip attached to said first edge of said front panel;
a second primary coupling strip attached to said second edge of said front panel;
a third primary coupling strip attached to said third edge of said front panel;
a fourth primary coupling strip attached to said fourth edge of said back panel;
a fifth primary coupling strip attached to said fifth edge of said back panel;

a sixth primary coupling strip attached to said sixth edge of said top panel; and

a seventh primary coupling strip attached to said seventh edge of said top panel;

a plurality of complementary coupling strips attached to said jacket, each complementary coupling strip having a plurality of miniature loops, wherein when said plurality of miniature hooks of anyone of said primary coupling strips is placed in contact with said plurality of miniature loops of anyone of said complementary coupling strips then a portion of said plurality of miniature hooks become entangled with a portion of said miniature loops, wherein said plurality of complementary coupling strips including:

a first complementary coupling strip attached to said first margin of said left side panel;

a second complementary coupling strip attached to said second margin of said left side panel;

a third complementary coupling strip attached to said third margin of said left side panel;

a fourth complementary coupling strip attached to said fourth margin of said left side panel;

a fifth complementary coupling strip attached to said fifth margin of said left side panel;

a sixth complementary coupling strip attached to said sixth margin of said left side panel; and

a seventh complementary coupling strip attached to said seventh margin of said left side panel;

a plurality of straps attached to said jacket, wherein said plurality of straps comprising:

a left strap attached to said left side panel; and

a right strap attached to said right side panel; and

a buckle attached to one of the straps of said plurality of straps, wherein said buckle is attachable to the other strap of said plurality of straps.

2. The device of Claim 1 wherein said buckle is attached to said right strap.

3. The device of Claim 1 wherein said buckle is attached to said left strap.

4. The device of Claim 1 wherein said interior flexible fabric comprises canvas.

5. The device of Claim 1 wherein said interior flexible fabric comprises plastic selected from the group consisting of rubber, neoprene, polyvinyl chloride, polyester, polyethylene, polypropylene, polyurethanes, polyacryls, polymethacryls, cellulosic polymers, styrene-acryl copolymers, polystyrene-polyacryl mixtures, polysiloxanes, urethane-acryl copolymers, siloxane-urethane copolymers, polyurethane-polymethacryl mixtures, silicone-acryl copolymers, vinyl acetate polymers, and mixtures thereof.

6. The device of Claim 1 wherein said exterior flexible fabric comprises canvas.

7. The device of Claim 1 wherein said exterior flexible fabric comprises plastic selected from the group consisting of rubber, neoprene, polyvinyl chloride, polyester, polyethylene, polypropylene, polyurethanes, polyacryls, polymethacryls, cellulosic polymers, styrene-acryl copolymers, polystyrene-polyacryl mixtures, polysiloxanes, urethane-acryl copolymers, siloxane-urethane copolymers, polyurethane-polymethacryl mixtures, silicone-acryl copolymers, vinyl acetate polymers, and mixtures thereof.

8. The device of Claim 1 wherein said thermal insulation material is a plastic selected from the group consisting of rubber, neoprene, polyvinyl chloride, polyester, polyethylene, polypropylene, polyurethanes, polyacryls, polymethacryls, cellulosic polymers, styrene-acryl copolymers, polystyrene-polyacryl mixtures, polysiloxanes, urethane-acryl copolymers, siloxane-urethane copolymers, polyurethane-polymethacryl mixtures, silicone-acryl copolymers, vinyl acetate polymers, and mixtures thereof.

9. The device of Claim 1 wherein the box is capable of containing twelve beer cans, in which the box height is about twelve and one half inches, the box length is about ten and one half inches, and the box width of about seven and one half inches.

10. The device of Claim 1 wherein the box is capable of containing twenty four beer cans, wherein the box height is about nine and three fourths inches, the box length is about ten and one half inches, and the box width of about eight inches.

11. A thermally insulative device which is foldable into a three dimensional box-like shroud for encasing a box having a box height, a box width and a box length, said device comprising:

a one-piece composite jacket formed with an interior flexible fabric, an exterior flexible fabric and with a thermal insulation material therebetween, said jacket comprising a plurality of panels integrally formed together with a plurality of flaps,

wherein said plurality of panels including:

5 a central rectangular bottom panel having a first long border, a second long border, a first short border and a second short border, said first long border of said central rectangular bottom panel is sized to be slightly longer than the box length, said second long border of said central rectangular bottom panel is sized to be slightly longer than the box length, said first short border of said central rectangular bottom panel sized to be slightly longer than the box width, said second short border of said central rectangular bottom panel sized to be slightly longer than the box width;

10 a generally rectangular front panel integrally formed with said first long border of said bottom panel, said front panel also having a first edge, a second edge and a third edge, said first edge of said front panel is sized slightly longer than the box length, said second edge of said front panel sized slightly longer than the box height, said third edge of said front panel sized slightly longer than the box height;

15 a generally rectangular back panel integrally formed with said second long border of said bottom panel, said back panel also having a fifth border, a fourth edge, and a fifth edge, said fifth border of said back panel sized slightly longer than the box length, said fourth edge of said back panel sized slightly longer than the box height, said fifth edge of said back panel sized slightly longer than the box height;

20 a generally rectangular left side panel integrally formed with said first short border of said bottom panel, said left side panel also having a first margin, a second margin, and a third margin, said first margin of said left side panel sized slightly longer than the box width, said second margin of said left side panel sized slightly longer than the box height, and said third margin of said left side panel sized slightly longer than the box height;

25 a generally rectangular right side panel integrally formed with said second short border of said bottom panel, said right side panel also having a fourth margin, a

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fifth margin, and sixth margin, said fourth margin of said right side panel sized slightly longer than the box width, said fifth margin of said right side panel sized slightly longer than the box height, said sixth margin of said right side panel sized slightly longer than the box height; and

5 a generally rectangular top panel integrally formed with said long fifth border of said back panel, said top panel also having a seventh margin, a sixth edge, and a seventh edge, said seventh margin of said top panel sized slightly longer than the box length, said sixth edge of said top panel sized slightly longer than the box width, said seventh edge of said top panel sized slightly longer than the box width;
10 and

wherein said plurality of flaps including:

a first flap integrally formed with said first margin of said left side panel;
a second flap integrally formed with said second margin of said left side panel;
a third flap integrally formed with said third margin of said left side panel;
15 a fourth flap integrally formed with said fourth margin of said right side panel;
a fifth flap integrally formed with said fifth margin of said right side panel;
a sixth flap integrally formed with said sixth margin of said right side panel; and
a seventh flap integrally formed with said seventh margin of said top panel;

a plurality of primary coupling strips attached to said plurality of flaps, wherein each primary
20 coupling strip having a plurality of miniature loops, said plurality of primary coupling strips including:

a first primary coupling strip attached to said first edge of said front panel;
a second primary coupling strip attached to said second edge of said front panel;
a third primary coupling strip attached to said third edge of said front panel;
25 a fourth primary coupling strip attached to said fourth edge of said back panel;
a fifth primary coupling strip attached to said fifth edge of said back panel;
a sixth primary coupling strip attached to said sixth edge of said top panel; and
a seventh primary coupling strip attached to said seventh edge of said top panel;

a plurality of complementary coupling strips attached to said jacket, each complementary
30 coupling strip having a plurality of miniature hooks, wherein when said plurality of miniature

loops of anyone of said primary coupling strips is placed in contact with said plurality of miniature hooks of anyone of said complementary coupling strips then a portion of said plurality of miniature loops become entangled with a portion of said miniature hooks, said plurality of complementary coupling strips including:

5 a first complementary coupling strip attached to said first margin of said left side panel;
 a second complementary coupling strip attached to said second margin of said left side panel;
 a third complementary coupling strip attached to said third margin of said left side panel;
 a fourth complementary coupling strip attached to said fourth margin of said left side
10 panel;
 a fifth complementary coupling strip attached to said fifth margin of said left side panel;
 a sixth complementary coupling strip attached to said sixth margin of said left side panel;
 and
 a seventh complementary coupling strip attached to said seventh margin of said left side
15 panel;

a plurality of straps attached to said jacket, wherein said plurality of straps comprising:

 a left strap attached to said left side panel; and
 a right strap attached to said right side panel; and
a buckle attached to one of the straps of said plurality of straps, wherein said buckle is attachable
20 to the other strap of said plurality of straps.

12. The device of Claim 11 wherein said buckle is attached to said right strap.

13. The device of Claim 11 wherein said buckle is attached to said left strap.

14. The device of Claim 11 wherein said interior flexible fabric comprises canvas.

15. The device of Claim 11 wherein said interior flexible fabric comprises plastic selected from
25 the group consisting of rubber, neoprene, polyvinyl chloride, polyester, polyethylene,
polypropylene, polyurethanes, polyacryls, polymethacryls, cellulosic polymers, styrene-acryl
copolymers, polystyrene-polyacryl mixtures, polysiloxanes, urethane-acryl copolymers, siloxane-
urethane copolymers, polyurethane-polymethacryl mixtures, silicone-acryl copolymers, vinyl
acetate polymers, and mixtures thereof.

30 16. The device of Claim 11 wherein said exterior flexible fabric comprises canvas.

17. The device of Claim 11 wherein said exterior flexible fabric comprises plastic selected from the group consisting of rubber, neoprene, polyvinyl chloride, polyester, polyethylene, polypropylene, polyurethanes, polyacryls, polymethacryls, cellulosic polymers, styrene-acryl copolymers, polystyrene-polyacryl mixtures, polysiloxanes, urethane-acryl copolymers, siloxane-urethane copolymers, polyurethane-polymethacryl mixtures, silicone-acryl copolymers, vinyl acetate polymers, and mixtures thereof.

18. The device of Claim 11 wherein said thermal insulation material is a plastic selected from the group consisting of rubber, neoprene, polyvinyl chloride, polyester, polyethylene, polypropylene, polyurethanes, polyacryls, polymethacryls, cellulosic polymers, styrene-acryl copolymers, polystyrene-polyacryl mixtures, polysiloxanes, urethane-acryl copolymers, siloxane-urethane copolymers, polyurethane-polymethacryl mixtures, silicone-acryl copolymers, vinyl acetate polymers, and mixtures thereof.

19. The device of Claim 11 wherein the box is capable of containing twelve beer cans, wherein said box height is about twelve and one half inches, the box length is about ten and one half inches, and the box width of about seven and one half inches.

20. A method of using a thermally insulative device which is foldable into a three dimensional box-like shroud for encasing a box having a box height, a box width and a box length, said method comprising:

obtaining the device comprising:

a one-piece composite jacket formed with an interior flexible fabric, an exterior flexible fabric and with a thermal insulation material therebetween, the jacket comprising a plurality of panels integrally formed together with a plurality of flaps,

wherein the plurality of panels including:

a central rectangular bottom panel having a first long border, a second long border, a first short border and a second short border, the first long border of the central rectangular bottom panel is sized to be slightly longer than the box length, the second long border of the central rectangular bottom panel is sized to be slightly longer than the box length, the first short border of the central rectangular bottom panel sized to be slightly longer than the

box width, the second short border of the central rectangular bottom panel sized to be slightly longer than the box width;

a generally rectangular front panel integrally formed with the first long border of the bottom panel, the front panel also having a first edge, a second edge and a third edge, the first edge of the front panel is sized slightly longer than the box length, the second edge of the front panel sized slightly longer than the box height, the third edge of the front panel sized slightly longer than the box height;

a generally rectangular back panel integrally formed with the second long border of the bottom panel, the back panel also having a fifth border, a fourth edge, and a fifth edge, the fifth border of the back panel sized slightly longer than the box length, the fourth edge of the back panel sized slightly longer than the box height, the fifth edge of the back panel sized slightly longer than the box height;

a generally rectangular left side panel integrally formed with the first short border of the bottom panel, the left side panel also having a first margin, a second margin, and a third margin, the first margin of the left side panel sized slightly longer than the box width, the second margin of the left side panel sized slightly longer than the box height, and the third margin of the left side panel sized slightly longer than the box height;

a generally rectangular right side panel integrally formed with the second short border of the bottom panel, the right side panel also having a fourth margin, a fifth margin, and sixth margin, the fourth margin of the right side panel sized slightly longer than the box width, the fifth margin of the right side panel sized slightly longer than the box height, the sixth margin of the right side panel sized slightly longer than the box height; and

a generally rectangular top panel integrally formed with the long fifth border of the back panel, the top panel also having a seventh margin, a sixth edge, and a seventh edge, the seventh margin of the top panel sized slightly longer than the box length, the sixth edge of the top panel sized

slightly longer than the box width, the seventh edge of the top panel sized slightly longer than the box width; and

wherein the plurality of flaps including:

a first flap integrally formed with the first margin of the left side panel;

a second flap integrally formed with the second margin of the left side panel;

a third flap integrally formed with the third margin of the left side panel;

a fourth flap integrally formed with the fourth margin of the right side panel;

a fifth flap integrally formed with the fifth margin of the right side panel;

a sixth flap integrally formed with the sixth margin of the right side panel; and

a seventh flap integrally formed with the seventh margin of the top panel;

a plurality of primary coupling strips attached to the plurality of flaps, wherein each primary coupling strip having a plurality of miniature hooks, the plurality of primary coupling strips including:

a first primary coupling strip attached to the first edge of the front panel;

a second primary coupling strip attached to the second edge of the front panel;

a third primary coupling strip attached to the third edge of the front panel;

a fourth primary coupling strip attached to the fourth edge of the back panel;

a fifth primary coupling strip attached to the fifth edge of the back panel;

a sixth primary coupling strip attached to the sixth edge of the top panel; and

a seventh primary coupling strip attached to the seventh edge of the top panel;

a plurality of complementary coupling strips attached to the jacket, each complementary coupling strip having a plurality of miniature loops, wherein when the plurality of miniature hooks of anyone of the primary coupling strips is placed in contact with the plurality of miniature loops of anyone of the complementary coupling strips then a portion of the plurality of miniature hooks become entangled with a portion of the miniature loops, wherein the plurality of complementary coupling strips including:

a first complementary coupling strip attached to the first margin of the left side

panel;

a second complementary coupling strip attached to the second margin of the left side panel;

a third complementary coupling strip attached to the third margin of the left side panel;

a fourth complementary coupling strip attached to the fourth margin of the left side panel;

a fifth complementary coupling strip attached to the fifth margin of the left side panel;

a sixth complementary coupling strip attached to the sixth margin of the left side panel; and

a seventh complementary coupling strip attached to the seventh margin of the left side panel;

a plurality of straps attached to the jacket, wherein the plurality of straps comprising:

a left strap attached to the left side panel; and

a right strap attached to the right side panel; and

a buckle attached to one of the straps of the plurality of straps, wherein the buckle is attachable to the other strap of the plurality of straps;

laying out the device onto a flat table top so that the device is substantially flat;

getting the box;

placing the box onto the bottom panel of the flattened device;

wrapping the jacket around the box to enshroud the jacket around the box;

contacting the primary coupling strips with the complementary coupling strips of the device when the jacket is wrapped around the box to locked the jacket around the box;

buckling up the buckle to the other strap of the plurality of straps when the jacket is locked around the box;

carrying the device from one location to another location when the jacket is locked around the box and the buckle is buckled up to the other strap;

lowering the device down onto a flat surface, said lowering step performed subsequent to said carrying step;

unbuckling the buckled up buckle from the other strap of the plurality of straps when the jacket is locked around the box and when the device is lowered onto the flat surface;

disconnecting the contacted primary coupling strips from the complementary coupling strips of the device when the jacket is wrapped around the box and when the device is lowered onto the flat surface;

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unwrapping the jacket from around the box when the primary coupling strips of the device are disconnected from the complementary coupling strips of the device, said unwrapping step performed subsequent to said disconnecting step;

lifting up the box, said lifting step performed subsequent to said unwrapping step;

10 folding up the device, said folding step performed subsequent to said lifting step; and
tying the straps around the folded up device.